

Class-E Cargo Compartment Fire Mitigation Strategies Subjected to Class-A Fires

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In response to three major fire incidents aboard cargo airplanes and subsequent NTSB recommendations, the Fire Safety Branch was tasked to investigate methods to enhance fire safety in class-E cargo compartments. Fire Containment Covers (FCCs) and Fire Resistant Containers (FRCs) effectiveness against class-A fires was tested.

FCCs, made of a fire resistant material, were developed to contain loose palletized cargo. FRCs were developed to replace existing cargo Unit Load Devices (ULDs) that have an aluminum frame lined with a polycarbonate material. The polycarbonate material was replaced with a composite material that is more fire resistant. Tests were conducted using standardized class-A fires, 18"x18"x18" cardboard boxes filled with 2.5lbs of shredded paper, for a period of 4 hours.